IN THE CLAIMS:

1. – 30. (Cancelled)

31. (New) Method for automatic application and monitoring of a structure to be applied onto a substrate, comprising:

determining a reference contour of a component located between two elements that are to be connected by utilizing a first camera in a leading direction to record a plurality of images;

regulating the progression of the structure to be applied according to the reference contour;

guiding an application facility based on the images recorded by the first camera;

applying the structure onto the substrate by the application facility according to the reference contour determined by the first camera;

monitoring the structure applied onto the substrate by the application facility utilizing a second camera in trailing direction; and

characterizing the reference contour by performing a three-dimensional positional correction for the application facility by means of the stereometry procedure utilizing the two cameras.

32. (New) The method according to claim 31, wherein the structure comprises at least one of an adhesive line and an adhesive trail.

33. (New) The method according to claim 31, wherein the reference contour comprises a reference edge of a component that is located between two elements that are to be joined.

34. (New) The method according to claim 31, wherein the two cameras record an image as at least one of a substrate, a section of the component, and one or more components, the image including at least a strip of the image, a full image, and a large image.

35. (New) The method according to claim 32, wherein the images of the two cameras comprise an overlapping area in a leading direction.

36. (New) The method according to claim 35, wherein the overlapping area recognizes a three-dimensional reference contour, a position of the reference contour is used to adjust the application facility prior to applying the structure.

37. (New) The method according to claim 31, wherein a projection is made onto the area of the reference contour for three-dimensional analysis.

38. (New) The method according to claim 37, wherein at least one laser line is applied onto the substrate in the form of a projection.

39. (New) The method according to claim 31, wherein the at least one camera records a strip of the image for at least one of an online regulation of the application structure and an online monitoring of the applied structure.

40. (New) The method according to claim 31, wherein the second camera records a strip of the image, the second camera uses the uses a strip of the image for online monitoring of the applied structure.

41. (New) The method according to claim 39, wherein the strips of the images of the two cameras are recorded to form a single sequence of images.

42. (New) The method according to claim 39, wherein an image recording rate is increased in proportion with the data reduction achieved by recording a strip of the image.

43. (New) The method according to claim 39, wherein the strip of the image comprises a plurality of picture lines, each camera utilizing at least one of a third, a fourth, a fifth of the picture lines as a strip of the image.

44. (New) The method according to claim 42, wherein an image recording rate of the cameras is multiplied by at least a three-fold, a four-fold and a five-fold factor based on the plurality of picture lines utilized.

45. (New) The method according to claim 31, wherein a parameterization and a recording of the application track proceeds in a single image recording run, whereby the images of all cameras are stored in a sequence of image.

46. (New) The method according to claim 45, wherein a parameterization is determined by the stored sequence of images of at least a robot travel path, a robot travel time, robot coordinates, a position of the applied structure, a contrast of the applied structure, a gray scale value of the applied structure, a color value of the applied structure, a width of the applied structure, and a quality of the applied structure.

47. (New) The method according to claim 46, wherein the parameterization is stored as a vector chain.

48. (New) The method according to claim 47, wherein the vector chain comprises a plurality of images recorded at a high image rate.

49. (New) The method according to claim 48, wherein the vector chain comprises a plurality of images recorded as short partial sections, the sections being less than 4 mm.

50. (New) The method according to claim 49, wherein the vector chain comprises sections between 0.5mm and 4mm.

51. (New) The method according to claim 49, wherein the vector chain comprises sections between 1mm and 3mm.

52. (New) The method according to claim 41, wherein the method further comprising three cameras, each camera configured to regulate in a leading direction according to the reference contour and for monitoring the applied structure in a trailing direction.

53. (New) The method according to claim 52, wherein the three cameras comprise an overlapping area to the adjacent camera on a circular line.

54. (New) The method according to claim 52, wherein the angle values of the circular line range from 0 to 360° and form a global coordinate system, where a segment of the circular line is assigned to the images of each individual camera.

55. (New) The method according to claim 52, wherein at least one of the reference contour and the adhesive trail progresses from one camera to the next camera, an automatic switch is made when the application structure or the reference contour progresses from the segment of the circular line of one camera via the overlapping area to the segment of the circular line of another camera.

56. (New) An apparatus for automatic application and monitoring of a structure to be applied onto a substrate, comprising:

at least one illumination module; and

a sensor unit having at least two cameras provided around an application facility for the structure to be applied, a first camera configured in a leading direction for regulation of the application facility by means of a reference contour and a second camera configured in a trailing direction for simultaneous online monitoring of the structure applied onto the substrate.

57. (New) The apparatus according to claim 56, wherein each camera having an optical axes, the optical axes of the individual cameras are configured intersect along a direction of view.

58. (New) The apparatus according to Claim 57, wherein the optical axes are configured to be directed along at least one of an axial longitudinal axis of the application facility, parallel to each other, and perpendicular to the substrate.

59. (New) The apparatus according to claim 56, wherein the apparatus further includes a third camera.

60. (New) The apparatus according to claim 56, wherein the two cameras are arranged at equal distances from each other in the direction of the circumference.

61. (New) The apparatus according to claim 56, wherein the cameras are configured to interact with each other such that the images of the cameras are stored in a sequence of images.

62. (New) The apparatus according to claim 56, wherein each camera records a strip of the image to form a part of the sequence of images.

63. (New) The apparatus according to claim 56, wherein a recording rate is increased according to the data reduction achieved by recording a single strip of the image.

64. (New) The apparatus according to claim 56, wherein a projection facility is provided on the application facility, the projection facility projects a plurality of image strips onto the substrate for a three-dimensional analysis.

65. (New) The apparatus according to claim 64, wherein the projection facility emits at least one laser line for a three-dimensional profile analysis.

66. (New) The apparatus according to claim 64, wherein at least two projection facilities are arranged around the application facility.

67. (New) The apparatus according to claim 56, wherein the cameras are configured to be arranged around the application facility and the cameras are directed at a circle whose center coincides with a center of the application facility, the cameras perform at least an essentially circular edge scan in the form of a circular caliper.

68. (New) The apparatus according to claim 67, wherein ea ch individual camera is configured to image at least one of an overlapping area between 30° to 90° and an overlapping area of approximately 60° relative to the next camera.

69. (New) The apparatus according to claim 56, wherein the illumination module comprises light emitting diodes (LEDs), the LEDs comprise at least one of an infrared LEDs, an ultra-violet (UV) LEDs, and a red-green-blue (RGB)LED, wherein the LEDs are configured to flash utilizing pulses of current ranging between 1.0 to 0.01ms.

70. (New) The apparatus according to claim 59, wherein the apparatus further comprises a calibrating device having individual form elements at an angle distance of 10° to calibrate the individual cameras for the assignment of the angle assignment.

71. (New) The apparatus according to claim 70, wherein the calibrating device comprises at least three marker sites utilized to calibrate the three cameras, the marker sites arranged in a circular arc of the calibrating device located at approximately 0°, 120°, and 240°.

72. (New) The apparatus according to claim 71, wherein the marker sites are formed by at least two form elements, and the markers are located on the circular line extending to an angle range of approximately 10°.